

CATS



NEWSLETTER

The official journal of the Capital Area Timex/Sinclair Users Group

PRESIDENTIAL RAMBLINGS

Not much to report this month. Hopefully, Vernon will be able to fill the blank space that I leave with eye-catching art work as he has done in the past.

• EARLY MEETING

PLEASE NOTE THAT WE HAVE THE MEETING VERY EARLY THIS MONTH - THE FIRST SATURDAY IN THE MONTH, AUGUST SIX.

If you do not normally attend the hardware sessions, August will be a good month to change. Duane Parker is going to give a continuation of his outstanding presentation on networking QL's and PASCAL. Don't miss this one!

The regular meeting will feature Herb Schaal, from our Wilmington, Delaware branch, talking on the use of computers with special emphasis on Timex-Sinclair and Sinclair ones. This talk should be a good one, too!

• THANK YOU

On a final note: I would like to thank all of you who expressed your concerns about my son, Bill. He is recovering nicely from the emergency appendectomy that he had on July 4th in Cooperstown, NY. Fortunately, he's a baseball freak!

See you at the meeting.

Bill

CATS Sees PASCAL and QL Network

by Hank Dickson

A lesson on PASCAL programing—using networked QL computers—was the special treat provided attendees at the June CATS meeting.

DUANE PARKER brought together a tremendous presentation on the intricacies of networking software, coupled with a view of the inherent beauty of the PASCAL language.

Participants in this unique affair included:

1. Duane Parker, whose QL and floppy-disk drive were the file-server for the network.
2. Herb Schaal
3. Hank Dickson, with Tom Bent's TRUMP card.
4. Dick Parker
5. Mark Fisher
6. Bill Barnhardt
7. Richard Roseen

With Duane Parker's tutorial on using QL PASCAL, CATS members were able to view the little-recognized but still potent networking capabilities of the QL. No additional network hardware is needed for the QL—it performs the basic network functions using the "network-in" and "network-out" miniature jacks in the back of the machine. Enabling software, however, is needed from a package such as Tony Tebby's TOOLKIT.

For a network using PASCAL, all participants were encouraged to have

Tebby's TOOLKIT package available on a TRUMP card, or other interface card. This arrangement was necessary because the PASCAL compiler requires a plug-in EPROM. Other network applications would not need this special arrangement.

About an hour of intense activity was needed to set up a seven-member network. Duane's QL and quad-density floppy-disk drive acted as file-server for the operation. The network was defined through boot programs in both the file-server and each QL, which assigned numbers to each of the stations (two through seven).

When Richard Roseen was added to the network after it was already operating, there was no great disruption. It did, however, take some fast footwork on the part of the network manager, Duane Parker, to blend him in.

Duane proceeded to show the networkers how to handle directories, broadcast files, and run programs from another QL. Slides for the workshop were shown by "broadcasting" a SuperBASIC program for each slide over the network.

Two problems surfaced during the exercises:

1. The command `NF _USE`, from the TOOLKIT package, did not work when used with a TRUMP card. Used with TOOLKIT in a ROM, it worked.
2. During the PASCAL session, QL PASCAL's limit on length of file names caused a problem. Shortening the file names a little relieved the congestion.

The PASCAL training took up the bulk

Continued on Page

In This Issue

Editorial	2
News	3
Book Review by Mark Fisher	4
Pascal Programs	5
The Best of the CATS Newsletter: QL Utilities (from the 11/88 issue) by Dick Parker	6
The Classifieds	7

AUGUST MEETING AGENDA

11:00 Workshop-PASCAL. Program-
ming-I led by Duane Parker

2:00 General Meeting

2:30 Program: Computer Uses by Herb
Schaal

4:30 Adjourn

KEY DATES

August

5 General Meeting

21 Executive Board-Location to be
announced

25 September newsletter **DEAD-
LINE**

September

9 General Meeting

Don't forget our Annual Picnic
which will be held on September 23.

FROM THE EDITOR

• Do you get the feeling that we are into Pascal?

I do, and I think it is appropriate that we are. For the last few years (in fact since the QL came on the scene), our group has been hardware oriented. For good reason because the machine was just plain unreliable. Almost all of us have had a QL go sour, sort of like a "computer rites of passage." There's nothing as chilling as seeing your display go wavy, then green, and then white and knowing that you should have saved that two hours worth of work when you thought of it several minutes ago but were just too busy! QL folks get into the habit very early of backing up their data often. So we had a great machine that only ran a short time. Enter hardware gurus like Tom Bent and, after 3 years, and many fixes later our machines could run forever, the only problem was that the screw holes were stripped out from being removed so many times!

• So here we are

We are now at the point envisioned by Mark Fisher a year or so back, ready to explore programming and various programming languages on the QL. When you come to think of it, this is where we HAVE to be. Commercial software support for the QL has never been great, but in the past, what was there was adequate. As the number of software houses with QL products shrinks, we will have to provide our own support and who better than ourselves can determine what we need? So throw your QL in your backpack and come to the hardware session at the August meeting to partake of Part Two of Duane Parker's PASCAL class.

• Picnic

It hardly seems like it, but 3 years ago Tom Bent suggested that we have a picnic, a "non-computer event". So the annual "Picnic in the Park" was born. As in past years, it will be held midway between our September and October meetings on September 23. Just as in the

past years, it will be held at Greenbelt National Park in the Laurel Picnic Area. More info and maps will be included in the September issue.

• The CATS BBS

I've been monitoring the BBS and I'd have to say that the usage is fairly low. That's too bad because, considering our geographically spread out membership, it's a good way to keep in touch between meetings. I would certainly like to hear from the readers that DON'T use the BBS as to why they aren't. Maybe we need to have a group buy on modems to get the usage up. Lets hear your comments.

• New BBS in town

All you Z88 types (and others, too, for that matter) should know that there is a new BBS in the local area dedicated to the Z88. Elsewhere in this issue there is information from Deep Modem on this newest addition to the telecommunication scene.

• Slow newsday (week?, month?)

In journalism, you can always tell when there is a dearth of newsworthy events by the number of "soft" stories that are carried. In a newsletter such as ours, it is by the amount of material that we use from other newsletters. This month, for

Continued on Page 4

Submissions to the newsletter should conform to the following criteria: If hard copy is submitted, it must be no wider than 2 3/8" in width. Hard copy is the preferred media for TS 1000 and 2068 based articles. QL users can submit microdrive cartridges or floppy disks. **NO HARD COPY. If possible, though, use the BBS. (301) 588-0579.** Send to:

CATS

P.O. Box 467

Fairfax Station, VA 22039

NEWS, NEWS, NEWS (some old & some new)

Deep Modem tells what's going on

Special Hardware Meeting — 11 am to 1:30 pm: Networking QLs to Study PASCAL — Part II

DUANE PARKER will conduct the next session in his series about programming in PASCAL on the QL.

Participants at the June meeting—and other members also—are urged to bring their QL's, monitors, trump cards, and EPROM

boards back for another session. Also: extension cords, power strips, reading lamps for keyboards and QL, "network interface cables" (which have 1/4" phono jacks). EPROM boards (to fit the back of the QL) are available from SHARP's, Inc. for between \$10 and \$20. Contact MARK STEUBER at P.O. Box 326, Mechanicsville, VA, 23111: (804) 730-9697, 9 am to 4 pm. PASCAL EPROMS to use with these boards are available from TOM BENT for around \$10. He had a couple left after the June session.

General Meeting — 2:30 pm Uses of Computers — The Good, the Bad and the Ugly: HERB SCHAAF, of Wilmington, Delaware,

will conduct a session in which he presents some examples of good v. ugly uses of computers which are a part of his own observation and experience. He will also encourage examples from the audience in what should prove to be a lively, computer-based retrospective.

Upload QLI (or BBS)

Last month Vernon published an off-hand listing adapted from an autodial program I had written for the 1000. The intent was to provide for a way to transmit ASCII listings from the 1000 to our other machines. I've done some

further fooling around on that score but nothing publishable.

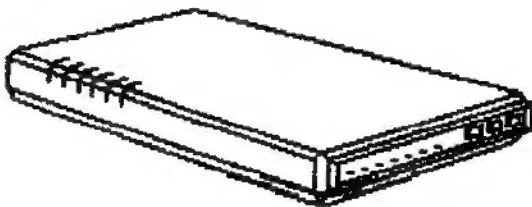
There are several problems. The 1000 won't merge programs,

so any BASIC devoted to the uploading must either be laboriously typed in each time, or stored above ramtop via some kluge or other. In addition, a BASIC program needs two levels of translation to be readable by other machines—the tokens must be expanded, and all characters must be translated into ASCII.

I've been able to do the expanding part, thanks to Dave Wood's book and a ROM call, but there seems to be some interference between the list-line-to-screen routine and my out-115 and out-119

routines. As I develop more info, I'll put it on the BBS. Any other thoughts would be welcomed. I guess that the goal would be a short

program, probably m/c, that would dump



an ASCII listing out the modem, rather than the printer.

I've been told that the Public Domain 1000 modem programs (such as mini-Xmod) will successfully do this, but I haven't seen them. Any info?

From: H L SCHAAF Re: Timachine

Found a fix for the bug in Timachine, change POKES in Line 106 from 32880 to 33880.

From: Gerald Lindsay; hippo Re: Z88 BBS

Hi, I'm Gerald Lindsay. I'm starting a BBS for Z88 users, which will be online in about 10 days. There will be about 200 files/programs for the Z-88, and hopefully a lot of input from throughout the East Coast, since the next closest BBS in in CA. I will leave a message here once the BBS is up, but please leave me a message if you're interested, as I'm trying to gauge local support. BBS will run Wildcat, and support 300/1200/2400 and MNP5, and will operate 24 hrs a day. It will be open to all, with practically no upload/download limits until there is somewhere else to get programs. Thanks for your time. (SEE RELATED MESSAGE BELOW)

From: Gerald Lindsay Rm: ZED-88 BBS

The ZED-88 BBS is open in BETA test mode at this time. The number is 703-968-9433 (VA metro), and is up most days at this time. There is no message base as such so far but there are some Z-88 files and programs available at

this time (about 80 or so) and more on the way. The board won't officially open till August 1st, but please stop by and help me debug this sucker. Only the Z88 is supported, I'm afraid, but if your just interested, stop on by.

Eudaemonic Pie (A book)

by Thomas Bass 1985,
Houghton Mifflin

Reviewed by Mark Fisher

One of the attractions of microcomputers is that anything seems possible. From the blue-sky, frivolous ideas such as my plan to counterattack the computer-sales calls by taping a battery powered TS1000 and MODEM to a telephone pole, programmed to call THEM continuously, to the blue boxes that used public information to open the doors of the international phone system, to the common hacker that wrote CPM so he could get reliable information flow in his machine, the computer has acted as a magic wand to make dreams real. What more likely target for computer hacking than a City that is devoted to dreams?

In this case the dreams were of wealth and independence from the normal grind. The city was Las Vegas - and the computer's role as a magic wand was to allow a player to PREDICT roulette. The players in this drama were much like people you've met at CATS. Coming to electronics from physics, and motivated by a mix between the early seventies reaction to the war machine and a late seventies awareness of the power of the computer, they realized that they could make use of their knowledge to earn enough money to break free of DOD contracts.

At this point, I should tell you that this is a true story. The author was a sometime member of the group that spent four years developing the theory and practice of computer-powered roulette prediction. Other members of the group were major players in Chaos theory, as mentioned in last month's review. In fact, the work on the roulette computer project served in part as a finishing school that prepared them to tackle chaos theory.

The title of the book came from the incorporated name for their group, Eudaemonic Enterprises. The Eudaemon is the good demon that rewards contemplation for the ancient Greeks.

In contrast to Chaos theory, roulette prediction is a "straight forward" application of classical mechanics. Given the initial speed of the wheel and the ball, and the frictional losses of each, it is possible to name within eight pockets which point the ball will end up in. The complications lie in carrying it out, and in a very hostile environment. The Mafia doesn't like to give too much of its money back. The computer that could predict roulette would have to be concealable, flexible, and fast. The final model was based on a CMOS 8085 CPU,

running a 4K machine code program. Input came from toe switches, while output was sent



via "radio" (LF induction fields) to an independent bettor. The computer itself was encapsulated in wax, and hidden in the soles of three shoes.

The book chronicles the growth of the group that nurtured this idea, and the trials and byways of its development. As literature, it suffers from the non-technically literate author's gee-whiz reaction to many of the technical details. At the same time, he is good at producing vivid portraits of the individuals that put so much of their soul into the project.

What happened? Well, remember it took several years of their young adulthood. Basically, by the time the hardware was finally ready, they had grown up enough to realize that there were better ways to spend their lives than in 24 hour palaces to venality, surrounded by whores and gangsters. The players went on to find new ways to open physics to the real world.

Pascal Report-Continued from Page 1

of the afternoon's activities. Duane combined lecture, 35mm slides, and screens sent from the file-server to the nodes to achieve a remarkable interactive learning experience.

Duane was able to get through two of the six exercises he had prepared for that afternoon. All the effort that brought a ton of Sinclair equipment into the New Carrollton library and shaped it into a QL local area network resulted in whetting, in a big way, the curiosity and interests of the CATS membership.

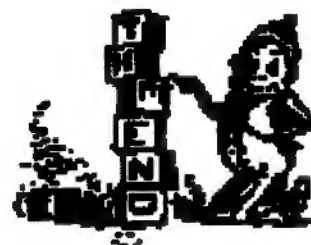
Fortunately, the PASCAL workshop will be renewed at CATS' August 5th meeting, beginning at 11 a.m., during the hardware workshop (see accompanying story). Bring your QL and get connected!

Editorial-Continued from Page 2

the first time, we are running less than the usual 12 pages. The copy just wasn't there. My modest suggestion is that you all unlimber your typing fingers and make the Editor's job easy! OK?

• DTP contest

As I indicated in the last issue, the September issue will be entered in the Washington Area Atari Enthusiasts-Current Notes DTP contest and I certainly don't want us Timex/Sinclair types to look bad. Program listings, program and book reviews, and hardware articles are all acceptable. Let's show these Atari types that we're still alive and REALLY kicking.



PASCAL PROGRAMS

```

PROGRAM grid(INPUT,OUTPUT);
BEGIN ( Draw the grid w/ letters. )
  WRITELN('a b c');
  WRITELN(' _ _ _ ');
  WRITELN(' | | ');
  WRITELN('d e f');
  WRITELN('g _ _ ');
  WRITELN(' | | ');
  WRITELN(' | | ');
  END.

PROGRAM vargrid(INPUT,OUTPUT);
VAR
  sqa,sqb,sqc,sqd:CHAR;
  sqf,sqg,sqh,sqi:CHAR;
  (These variables will hold the position (a
  to i), or the X or O)
  BEGIN ( Main Program )
    ( Assignment of variables. )
    sqa:='a';
    sqb:='gX';
    sqc:='c';
    sqd:='d';
    sqe:='e';
    sqf:='f';
    sqg:='g';
    sqh:='h';
    sqi:='i';
    ( Draw the grid w/ variables. )
    WRITELN('sqa','|',sqb,'|',sqc);
    WRITELN(' _ _ _ ');
    WRITELN(' | | ');
    WRITELN(' | | ');
    WRITELN('sqg,g|',sqh,'|',sqi);
    END.

PROGRAM vargrid(INPUT,OUTPUT);
VAR sqa,sqb,sqc,sqd,sqe:CHAR;

```

```

  sqf,sqg,sqh,sqi,turn:CHAR;
  (These variables will hold the position (a
  to i), or the X or O)
  PROCEDURE showgrid;
  BEGIN ( Draw the grid w/ variables. )
    WRITELN('sqa','|',sqb,'|',sqc);
    WRITELN(' _ _ _ ');
    WRITELN(' | | ');
    WRITELN(' | | ');
    WRITELN('sqd','|',sqm,'|',sqf);
    WRITELN(' _ _ _ ');
    WRITELN(' | | ');
    WRITELN('sqg','|',sqh,'|',sqi);
    END; (of procedure)
  BEGIN ( Main Program )
    ( Assignment of variables. )
    sqa:='a';
    sqb:='b';
    sqc:='c';
    sqd:='d';
    sqe:='e';
    sqf:='f';
    sqg:='g';
    sqh:='h';
    sqi:='i';
    showgrid;
    (Get input from the player)
    WRITELN('Choose the first block for an
    X');
    READLN(turn);
    WRITELN('Square ',turn,' must be
    replaced with an X'); showgrid;
    END.

PROGRAM turn2(INPUT,OUTPUT);
VAR sqa,sqb,sqc,sqd,sqe:CHAR;
  sqf,sqg,sqh,sqi,turn:CHAR;
  (These variables will hold the position (a
  to i), or the X or O)
  PROCEDURE showgrid;
  BEGIN ( Draw the grid w/ variables. )
    WRITELN('sqa','|',sqb,'|',sqc);
    WRITELN(' _ _ _ ');

```

```

  WRITELN(' | | ');
  WRITELN('sqd','|',sqe,'|',sqf);
  WRITELN(' _ _ _ ');
  WRITELN(' | | ');
  WRITELN('sqg','|',sqh,'|',sqi);
  END; (of procedure)
  BEGIN ( Main Program )
    ( Assignment of variables. )
    sqa:='a';
    sqb:='b';
    sqc:='c';
    sqd:='d';
    sqe:='e';
    sqf:='f';
    sqg:='g';
    sqh:='h';
    sqi:='i';
    showgrid
    (Get input from the player)
    WRITELN('Choose ');
    READLN(turn);
    CASE turn OF
      'a':sqa:='X';
      'b':sqb:='X';
      'c':sqc:='X';
      'd':sqd:='X';
      'e':sqe:='O';
      'f':sqf:='X';
      'g':sqg:='X';
      'h':sqh:='X';
      'i':sqi:='X';

```

**DON'T
FORGET**

Bring your QIs to the
meeting
For an equipment list
see page 3

QIL UTILITIES by Dick Parker

A Menu Driven Selection Program

Some utilities are used time and again in one's computer operations. Each of us has our favorite utilities. This program presents a menu program which will allow easy selection from a group of these utility programs residing at the bottom of memory. It is a defined procedure which calls a number of other procedures. These other procedures are your choice utilities. For illustrative purposes, a few such procedures are included in the program listing.

A call to this program can be put in your boot routine to provide an automatic initialization with the menu. Arrow keys or number keys will move you about the menu in the normal fashion. Keying ENTER on the desired highlighted strip will obtain the desired utility. Some utilities can return you to the menu. Study the code to see how it can be modified to your needs.

The screen dimensions shown in the program are for use on a RGB monitor. A TV would use a screen 455x200 instead of 511x255 with appropriate offsets to center it. The menu selection code is contained in the first 87 lines of the program. Blanks are critical only in the two lines containing START and STOP and may need to be changed to fit your screen. The first six procs are original to me. The others are modifications of code from various sources.

THE BOOT PROGRAM

```
10 CLEAR
20 WINDOW 460,190,20,0:CSIZE
2,1:CLS
30 PRINT\\\\"LOADING  Uti-
lity_Screen_Bas"
40 PAUSE 300
50 LRUN flp2_utility_screen_bas
60 CLEAR:CSIZE 1,0:DLIN TO 100
```

THE UTILITIES

```
32500 utilities
32501 REMark *****
****
3 2 5 0 2  D E F I N E  P R O -
Cedure menu_sel(menu%)
32503 REMark *****
****
32504 LOCAl loop,key,pos
32505 OPEN#1,con: OPEN#2,con:
OPEN#3,ser
32506 OPEN#4,scr_355x12a78x208
32507 INK#0,0: INK#1,7: INK#2,6
32508 PAPER#0,6: PAPER#1,1: PA
PER#2,2
3 2 5 0 9      W I N -
DOW#0,512,44,0,212: WIN-
DOW#1,512,212,0,0: WIN-
DOW#2,512,212,0,0
32510 Sweep 8: CLS: STRIP 2
32511 CSIZE 3,1: AT 0,10: PRINT"U
TILITY MENU": CSIZE 2,0
32512 FOR loop=1 TO menu%
32513 pos=loop*2: IF loop=1: INK 7:
STRIP 2
32514 AT pos,9: PRINT menu$(loop)
32515 END FOR loop
32516 PRINT #0,\\\"USE UP/
D O W N  O R  N U M -
B E R  K E Y S  T O  S E L E C T  M E N U \"
32517 PRINT #0,\\\"USE ENTER KEY
T O  C A L L  S E L E C T E D  M E N U \"
32518 PRINT #0,\\\"ENTER 0 TO EXI
T MENU\"
32519 loop=0
32520 REPEAT menunbr
32521 key=CODE(INKEY$(-1))
32522 STRIP 2: INK 7: AT pos,9: P
RINT menu$(loop)
32523 IF key=48 THEN loop=0
32524 IF key=49 THEN loop=1
```

```
32525 IF key=50 THEN loop=2
32526 IF key=51 THEN loop=3
32527 IF key=52 THEN loop=4
32528 IF key=53 THEN loop=5
32529 IF key=54 THEN loop=6
32530 IF key=55 THEN loop=7
32531 IF key=216 OR key=208 THEN
32532 IF key=208 THEN loop=loop
-1
32533 IF key=216 THEN loop=loop+1
32534 IF loop<1 THEN loop=menu%
%
32535 IF loop>menu% THEN loop=
1
32536 ELSE 32537 IF key=10 THEN
32538 EXIT menunbr
32539 END IF 32540 END IF 32541
IF loop<0 THEN 32542 pos=loop*
2
32543 STRIP 7: INK 2: AT pos,9: P
RINT menu$(loop)
32544 END IF 32545 menun=loop
32546 END REPEAT menunbr
32547 PAPER 2: INK 7
32548 END DEFINE menu_sel
32549 REMark *****
****
32550 DEFINE PROCedure utilities
32551 REMark *****
****
32552 LOCAl loop: CSIZE#0,0,0
32553 DIM menu$(7,25):SetA
32554 RESTORE 32579
32555 FOR loop=1 TO 7
32556 READ menu$(loop)
32557 END FOR loop
32558 menu_sel 7
32559 SELECT ON menun=
32560 ON menun= 0
32561 CLS: CLS#0
32562 STOP
```

The reprint of this article will be continued
in next month's issue

THE CLASSIFIEDS

Order Now! Then Watch Your Mail!

THAT'S RIGHT!

Now you can get the RMG CATALOG on LKDOS DISK in TASWORD 2 files. This format for the 2068 will be the only format available and at the same old price of only:

\$3.00 PP

AND THERE'S MORE!!!

We now offer our monthly mailers on the same format disk! Keep up with what's new, used equipment and SUPER BUYS! AS AN EXTRA BONUS YOU WILL GET AT LEAST 3 PUBLIC DOMAIN S/W ITEMS FOR THE LKDOS SYSTEM PER YEAR! This alone is worth more than the \$12 per year subscription price!

(COUPONS INCLUDED WITH BOTH PACKS)

RMG ENTERPRISES

1419 1/2 7TH STREET

OREGON CITY, OREGON 97045

503/655-7484 * NOON-10 TUE-SAT



ADVERTISING INFORMATION: CATS will run one free 1/4 page "commercial" ad per one year full (\$18) membership. Noncommercial ads may be submitted any time. Publication dates for both types will be determined by the Newsletter Editor.

ADVERTISING RATES: Full page, \$25; 1/2 page, \$15; 1/4 page, \$10; 2" X 2 1/2", \$7

CATS maintains a gratis exchange of newsletters with approximately 30 Users Groups across the U.S. and Canada. Clubs not sending a newsletter to us for six months are automatically taken off the list.

(703) 978-1835
Vernon Smith

Bill Barnhart
Hank Dickson
George Ray
Ruth Fogley
Joe Miller
Barry Washington
Mark Fisher
Phil Russo
Vacant
Tom Bent
Newsletter Editor &
contact person

Immediate Past President
Newsletter Editor &
contact person

Executive Board
President
1st Vice President
2nd Vice President
Recording Secretary
Corresponding Secretary
Treasurer
Members-at-Large

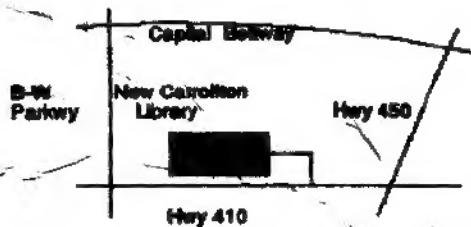
**The Capital Area
Timex/Sinclair Users Group**
is a not-for-profit group devoted to serving the
interests of those who own, use, or are
interested in the Timex/Sinclair family of
computers.

DAMAGED IN HANDLING
IN THE POSTAL SERVICE



FIRST CLASS MAIL

CATS Newsletter
P.O. Box 467
Fairfax Station, VA 22039



The next meeting of CATS will be held on:

Saturday, August 5, 1989 11:00 AM Workshop
2:00 PM General Meeting

This month's workshop topic will be PASCAL programming with Duane Parker.

At: New Carrollton Public Library
7414 Riverdale Road (Hwy 410), New Carrollton, MD

IF YOU ARE NOT A MEMBER OF CATS, THIS IS THE ONLY ISSUE YOU WILL RECEIVE

Dues: \$18 per year, per family

Meetings
Monthly meetings are held from 11:00 AM to 4:30 PM, on the second Saturday of each month, at the New Carrollton Public Library.
Newsletter
Memberships cost \$18 per year. are good for 12 months, and include all privileges (access to libraries, group buys, etc.). A newsletter only subscription is available for persons living outside the Washington Metro area and is \$12.00 per year.

Networks

Timex SIG on CompuServe: Wednesday night, 10:00 PM Eastern time (GO CLUB).

OZX BBS: (505) 522-7081 FIDO net 15, node 6. East Coast dial (703) 547-4815 FIDO net 18, node 9.

CATS BBS: (301) 588-0579. 8-N-1. 300 baud only. News and general information, 24 hours a day.